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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,111	10/14/2003	Jr-Shian Tsai	1000-0022	4431

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EXAMINER	
VUONG, QUOCHIEN B	
ART UNIT	PAPER NUMBER
2618	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/685,111	TSAI ET AL.	
	Examiner	Art Unit	
	Quochien B. Vuong	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *18-26 and 37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,27-36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-17, 27-36, and 38, drawn to a wireless access point for receiving, storing, and transmitting service signal comprising service information, classified in class 370, subclass 338.

   II. Claims 18-26 and 37, drawn to a wireless client device for receiving and displaying service availability information during power save mode, classified in class 370, subclass 311.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination Group II has separate utility such as power saving for the wireless client device which has nothing to do with Group I. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a

continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Applicant's representative Mr. John Scott on 7/19/2007 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-17, 27-36, and 38. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-26 and 37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

6. The information disclosure statement (IDS) submitted on 05/09/2005 and 09/02/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3-6, 8, 10, 36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Hild et al. (EP 1022876A1).

Regarding claim 1, Hild et al. (figure 1; paragraphs [0018], and [0038]-[0042]) disclose a wireless access point (10) comprising: a memory (16) to store information relating to services available in an associated network (paragraph [0049]); a wireless transceiver (13 and 14) to provide wireless communication with one or more wireless client devices (paragraph [0047]); and a controller (17) to generate a services signal using service related information from said memory and to cause said wireless transceiver to transmit said services signal (paragraphs [0049]-[0050]).

As to claim 3, Hild et al. disclose wherein said services signal is transmitted as part of a beacon signal transmitted by said wireless transceiver (paragraphs [0039], [0047]).

As to claim 4, Hild et al. disclose wherein said wireless access point is programmed for use within a wireless network that utilizes medium access control (MAC) frames, wherein said services signal is transmitted as part of a frame body of a MAC frame (paragraphs [0048]-[0050]).

As to claim 5, Hild et al. disclose wherein said services signal includes one or more information elements within said frame body of said MAC frame (paragraphs [0048]-[0050]).

As to claim 6, Hild et al. disclose wherein said frame body of said MAC frame also includes information relating to a service advertisement frequency (paragraphs [0048]-[0050]).

As to claim 8, Hild et al. disclose wherein said services signal describes services using a format that is readable within a data link layer of the associated network (paragraph [0048]).

As to claim 10, Hild et al. disclose wherein said controller is programmed to broadcast services signals at predetermined intervals (paragraphs [0018] and [0039]).

Regarding claim 36, Hild et al. (figure 1; paragraphs [0018], and [0038]-[0042]) disclose a system comprising a wireless access point (10) including a memory (16) to store information relating to services available in an associated network (paragraph [0049]); a wireless transceiver (13 and 14) to provide wireless communication with one or more wireless client devices (paragraph [0047]; and a controller (17) to generate a services signal using information from said memory and to cause said wireless transceiver to transmit said services signal (paragraphs [0049]-[0050]; and a portable

computer to receive the services signal from said wireless transceiver and to display network service information to a user of the portable computer based thereon (paragraph [0032]).

As to claim 38, Hild et al. disclose wherein said wireless transceiver transmits said services signal as part of a medium access control (MAC) frame (paragraphs [0048]-[0049]).

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 2, 11, 12, 27-29, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Karhu (US Publication No. 2004/0199616).

Regarding claim 1, Karhu (figures 1-3) discloses a wireless access point (110a-d, paragraph [0019]) comprising: a memory to store information relating to services available in an associated network (paragraphs [0024]-[0028]); a wireless transceiver to provide wireless communication with one or more wireless client devices (paragraphs [0019], [0024]); and a controller to generate a services signal using service related information from said memory and to cause said wireless transceiver to transmit said services signal (paragraph [0023]).

As to claim 2, Karhu discloses wherein said controller includes a service abstraction unit to parse service information received from a service discovery server and store said service information in said memory (paragraphs [0024]-[0028]).

Regarding claim 11, Karhu (figures 1-3) discloses a wireless access point (110a-d, paragraph [0019]) comprising: a memory (paragraphs [0024]-[0028]); and a controller to receive information about services available within an associated network from at least one service discovery server and to store the information in a predetermined format within the memory (paragraphs [0023]-[0028]).

As to claim 12, Karhu diclsoes wherein said controller is programmed to generate a services signal, using information from said memory, to be transmitted to one or more wireless client devices within the associated network (paragraphs [0023]-[0028]).

Regarding claim 27, Karhu (figures 1-3) discloses a method comprising: receiving information relating to services available within a network from one or more service discovery servers (paragraphs [0021] and [0023]); storing the information within a memory in a wireless access point 9paragraphs [0025]-[0027]); and generating a services signal to be wirelessly transmitted in the network, using information stored in the memory (paragraphs [0023]-[0028]).

As to claim 28, Karhu discloses transmitting said services signal (figure 1 and paragraphs [0019], [0023]).

As to claim 29, Karhu discloses wherein transmitting said services signal includes broadcasting said services signal to wireless client devices within a coverage area of the wireless access point (figure 1 and paragraph [0019]).

Regarding claim 36, Karhu (figures 1-3) discloses a system comprising a wireless access point (110a-d, paragraph [0019]) including: a memory to store information relating to services available in an associated network (paragraphs [0024]-[0028]); a wireless transceiver to provide wireless communication with one or more wireless client devices (paragraphs [0019], [0024]); and a controller to generate a services signal using service related information from said memory and to cause said wireless transceiver to transmit said services signal (paragraph [0023]); and a portable computer to receive the services signal from said wireless transceiver and to display network service information to a user of the portable computer based thereon (paragraphs [0020]-[0021]).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 2, 9, 11-13, 15-17, 27-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hild et a. in view of Moore et al. (US Publication No. 2003/0027525).

Regarding claim 2, Hild et al. disclose the wireless access point of claim 1 above. Hild et al. do not specifically disclose wherein said controller includes a service abstraction unit to parse service information received from a service discovery server

and store said service information in said memory. However, Moore et al. disclose a service abstraction unit to parse service information received from a service discovery server and store said service information in a memory (paragraphs [0035] and [0038]). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Moore et al. to the wireless access point of Hild et al. in order to save time since the services can be downloaded directly from the memory.

As to claim 9, Hild et al. disclose the wireless access point of claim 1 above. Hild et al. do not specifically disclose wherein said controller is programmed to generate said services signal in response to a request received from a wireless client device. However, Moore et al. disclose a controller is programmed to generate said services signal in response to a request received from a wireless client device {paragraphs [0032] and [0035]). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Moore et al. to the wireless access point of Hild et al. in order to provide requested service to the client.

Regarding claim 11, Hild et al. (figure 1; paragraphs [0018], and [0038]-[0042]) disclose a wireless access point (10) comprising: a memory (16) (paragraph [0049]); and a controller (17) to receive information about services available within an associated network from at least one service discovery server (paragraphs [0049]-[0050]). Hild et al. do not specifically disclose the controller stores the information in a predetermined format within the memory. However, Moore et al. disclose a controller stores the information in a predetermined format within the memory (paragraphs [0035]

and [0038]). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Moore et al. to the wireless access point of Hild et al. in order to save time since the services can be downloaded directly from the memory.

As to claim 12, Moore et al. disclose wherein said controller is programmed to generate a services signal, using information from said memory, to be transmitted to one or more wireless client devices within the associated network (paragraphs [0032], [0035], and [0038]).

As to claim 13, Hild et al. disclose wherein said services signal describes services available within the associated network in a format that is readable within a data link layer of the associated network (paragraphs [0048]-[0049]).

As to claim 15, Hild et al. disclose a wireless transceiver (figure 1, items 13 and 14) to wirelessly transmit said services signal (paragraphs [0047]-[0048]).

As to claim 16, Hild et al. disclose wherein said services signal is transmitted as part of a medium access control (MAC) fame (paragraphs [0048]-[0049]).

Regarding claim 17, Hild et al. disclose the wireless access point of claim 12 above. Hild et al. do not specifically disclose wherein said controller includes a service abstraction unit to parse service information received from a service discovery server and store said service information in said memory. However, Moore et al. disclose a service abstraction unit to parse service information received from a service discovery server and store said service information in a memory (paragraphs [0035] and [0038]). Therefore, it would have been obvious for one having ordinary skill in the art at the time

the invention was made to adapt the teaching of Moore et al. to the wireless access point of Hild et al. in order to save time since the services can be downloaded directly from the memory.

Regarding claim 27, Hild et al. (figure 1; paragraphs [0018], and [0038]-[0042]) disclose a method comprising: receiving information relating to services available within a network from one or more service discovery servers; and generating a services signal to be wirelessly transmitted in the network, using the receiving information (paragraphs [0049]-[0050]). Hild et al. do not specifically disclose storing the information within a memory in a wireless access point. However, Moore et al. disclose storing the information within a memory in a wireless access point (paragraphs [0035] and [0038]). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Moore et al. to the wireless access point of Hild et al. in order to save time since the services can be downloaded directly from the memory.

As to claim 28, Moore et al. disclose transmitting said services signal (paragraph [0035]).

As to claim 29, Moore et al. disclose wherein transmitting said services signal includes broadcasting said services signal to wireless client devices within a coverage area of the wireless access point (figure 1 and paragraph [0035]).

As to claim 30, Hild et al. disclose wherein transmitting said services signal includes transmitting said services signal as part of a wireless beacon signal (paragraphs [0039], [0047]).

As to claim 31, Hild et al. disclose wherein transmitting said services signal includes transmitting said services signal as part of a medium access control (MAC) frame (paragraphs [0048]-[0050]).

As to claim 32, Hild et al. disclose wherein transmitting said se/'vices signal includes transmitting said services signal within a frame body of said MAC frame (paragraphs [0048]-[0050]).

As to claim 33, Hild et al. disclose wherein transmitting said services signal includes transmitting said services signal within an information field of said frame body of said MAC frame (paragraphs [0048]-[0050]).

As to claim 35, Hild et al. disclose wherein said services signal describes services available within the associated network in a format that can be read within a data link layer of the network (paragraph [0048]).

13. Claims 7, 14, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hild et al. in view of Czerwinski et al. ("An Architecture for a Secure Service Discovery Service", Mobicom'99, Proceeding of the 5th Annual ACM/IEEE International. Conference on Mobile Computing and Networking, August 15, 1999, pages 24-35).

Regarding claims 7, 14, and 34, Hild et al. disclos the wireless access point and method of claims 1, 11, and 27 above, respectively. Hild et al. do not disclose the services signal describes services using an extensible markup language (XML). However, it is well known in the art for a services signal describes services using an extensible markup language (XML) as taught by Czerwinski et al. (page 24, see

abstract and paragraphs 5 and 6). Therefore, it would have been obvious for one having ordinary skill in the art at the time the inventions was made to adapt the services signal describes services using an extensible markup language (XML) of Czerwinski et al. to the wireless access point and method of Hild et al. in order to leverage the flexibility and semantic-rich content.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fischer et al. (US 2002/0089959) disclose system and method for providing a selectable retry strategy for frame-based communications.

Stephens et al. (US 2003/0095524) disclose virtual linking using a wireless device.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QUOCHIEN B. VUONG
PRIMARY EXAMINER

Quochien B. Vuong
July 20, 2007.